

REMARKS

1. SUMMARY OF OFFICE ACTIONS

The Office Action of October 20, 2005

The Office Action of October 20, 2005 states that the response filed on July 27, 2005 as not fully responsive to the prior Office Action because the Applicant has failed to address the rejections of claims originally presented in the Office Action of November 09, 2004 and maintained in the Office Action of April 11, 2005 (Office Action, Page 2, Paragraph 2).

The Office Action of November 09, 2004

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,438,652 (hereinafter Jordan) in view of U.S. Patent No. 6,138,162 (hereinafter Pistriotto).

Claims 8-10, 21-28, 31 and 34 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jordan in view of Pistriotto further in view of U.S. Patent No. 6,304,913 (hereinafter Rune).

Claims 11-15 and 29-30, 32, and 33 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jordan in view of Pistriotto further in view of U.S. Patent No. 6,205,477 (hereinafter Johnson).

Claims 16-20 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jordan in view of Pistriotto further in view of European Patent No. 0959 601 (hereinafter Chauhan).

The Office Action of April 11, 2005

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,438,652 (hereinafter Jordan) in view of U.S. Patent No. 5,774,660 (hereinafter Brendel).

Claims 8-10, 21-28, 31, and 34-37 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jordan in view of Brendel further in view of U.S. Patent No. 6,304,913 (hereinafter Rune).

Claims 11-15 and 29-30, 32, and 33 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jordan in view of Brendel further in view of U.S. Patent No. 6,205,477 (hereinafter Johnson).

Claims 16-20 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jordan in view of Brendel further in view of European Patent No. 0959 601 (hereinafter Chauhan).

2. RESPONSE TO 35 U.S.C 103 REJECTIONS IN THE OFFICE ACTION OF NOVEMBER 09, 2004

The present claims are patentable over the combination of Jordan and Pistriotto

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jordan (US 6,438,652) in view of Pristriotto (US 6,138,162), originally presented in the Office Action of November 9, 2004. However, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references, when combined, must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, and not based on the applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Red. Cir. 1991).

In the present case, the combination of Jordan and Pistriotto does not teach or even suggest each and every element of the present claims. In particular, the present claim includes the feature of "determining, according to *a type-of-service parameters and loads on a number of information object repositories*, which information object repositories should service the client's

request for the information object without regard as to whether the information object is actually stored at the information object repository selected” (Claim 1; emphasis added).

Jordan describes a redirection scheme in which a load balancer is used to orchestrate redirection made by a number of cooperating cache servers. In the event that the information object is unavailable in the selected cache server, the load balancer determines which cache should respond to the selected cache server depending on the load conditions. In particular, Jordan teaches that the load monitor “examines the load table 102 to see if the owner is currently overloaded (and that the forwarding frequency 1011 is a significant contributor thereto), in step 204. If yes, in step 205, the load monitor finds an underloaded (or less loaded) cache server and assigns it as the new 10122 (or shared) owner 10122 of the requested object” (Jordan, Col.6, lines 58-64). Clearly, Jordan is only concerned with the load of the cooperating caches and not other parameters. This alone is sufficient for the present claims to be patentable over Jordan.

Even the additional teachings of Pistriotto do not render the present claims obvious. Pistriotto shows a method for redirecting client request to a cache. A client computer may request particular types of information by including a category ID in request messages. The destination computer may redirect the client’s request messages to a caching proxy server. In turn, the caching proxy server notifies the client computer to direct requests to the address of a particular caching proxy server based on the category ID (Pistriotto, Abstract, Col.7, lines 4-21 and Col.9, lines 21-22). Clearly, Pistriotto teaches a different redirection scheme employing a category ID which is specifically included in the request message. This is absolutely different from the presently claimed feature of “determining, according to *a type-of-service parameters and loads on a number of information object repositories*, which information object repositories should service the client’s request for the information object without regard as to whether the information object is actually stored at the information object repository selected” (Claim 1; emphasis added). Clearly, the combination of Jordon and Pistriotto fails to teach or even suggest each and every element of the present claims. Therefore, the present claims are patentable over the combination of Jordon and Pistriotto.

Claims 8-10, 21-28, 31, and 34-37 are patentable over the combination of Jordan and Pistriotto even when considered in combination with Rune

Rune (US 6,304,913) describes a method for selecting a closest server based on hop counts, which may be computed in different ways (Rune, Col. 4, lines 29-47). Rune does not, however, teach or suggest a redirection scheme in which the address of a selected information object repository is returned in response to a request for an information object from a client. It is questionable whether a mechanism such as that described by Rune would ever have been considered for use in combination with the systems taught by Jordan and Pistriotto. Accordingly, even if Rune does discuss methods for determining a topologically close cache, such teachings are irrelevant because the combination is flawed.

Claims 11-15, 30, 32 and 33 are patentable over Jordan and Pistriotto even when considered in combination with Johnson

Johnson (US 6,205,477) describes a method for distributing service requests among a number of servers according to position metrics, in particular, the total number of service requests that each of the server is designed to service. Similar to the case of Rune, it is questionable whether a mechanism such as that described by Johnson would ever have been considered for use in combination with the systems taught by Jordan and Pistriotto. Hence, even if Johnson considers the load of the server, such teachings are irrelevant because the motivation for the combination has not been properly established.

Claims 16-20 are patentable over Jordan and Pistriotto even when considered in combination with Chauhan

Chauhan (EP 0959601) describes a method for selecting a server from among a number of mirrors. Such teachings are irrelevant, however, because the claims are patentable for other reasons as discussed above with respect to claim 1.

3. RESPONSE TO 35 U.S.C 103 REJECTIONS IN THE OFFICE ACTION OF APRIL 11, 2005

The present claims are patentable over the combination of Jordan and Brendel

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jordan in view of Brendel (US 5,774,660) as originally presented in Office Action, April 11,

2005. However, the combination of Jordan and Brendel does not teach or even suggest each and every element of the present claims. In particular, the present claim includes the feature of “determining, according to *a type-of-service parameters and loads on a number of information object repositories*, which information object repositories should service the client’s request for the information object without regard as to whether the information object is actually stored at the information object repository selected” (Claim 1; emphasis added).

As described above, Jordan describes a redirection scheme in which a load balancer is used to orchestrate redirection made by a number of cooperating cache servers. In the event that the information object is unavailable in the selected cache server, the load balancer determines which cache should respond to the selected cache server depending on the load conditions. In particular, Jordan teaches that the load monitor “examines the load table 102 to see if the owner is currently overloaded (and that the forwarding frequency 1011 is a significant contributor thereto), in step 204. If yes, in step 205, the load monitor finds an underloaded (or less loaded) cache server and assigns it as the new 10122 (or shared) owner 10122 of the requested object” (Jordan, Col.6, lines 58-64). Clearly, Jordan is only concerned with the load of the cooperating caches. This alone is sufficient for the present claims to be patentable over Jordan.

Even the additional teachings of Brendel do not render the present claims obvious. Brendel describes a method in which a load balancer is used to redirect a client request to one of the servers in a server farm. In particular, Brendel specifically teaches a balancing means which “receives the list of network nodes containing the requested resource. It chooses as an assigned node one of the network nodes in the list of network nodes. Thus the load balancer chooses an assigned node based on the resources contained by each network node. The load balancer performs resource-based load balancing” (Brendel, Col. 6, lines 53-58). It will be noted that Brendel, too, fails to teach the presently claimed feature of “determining, according to *a type-of-service parameters and loads on a number of information object repositories*, which information object repositories should service the client’s request for the information object” (Claim 1). Consequently, the present claims are patentable over the combination of Jordan and Brendel as the combination fails to teach or even suggest each and every element of the present claims.

Claims 8-10, 21-28, 31, and 34-37 are patentable over the combination of Jordan and Brendel even when considered in combination with Rune

As established above, Rune does not teach or suggest a redirection scheme in which the address of a selected information object repository is returned in response to a request for an information object from a client. It is questionable whether a mechanism such as that described by Rune would ever have been considered for use in combination with the systems taught by Jordan and Brendel. Accordingly, even if Rune does discuss methods for determining a topologically close cache, such teachings are irrelevant because the claims are patentable for other reasons.

Claims 11-15, 30, 32 and 33 are patentable over Jordan and Brendel even when considered in combination with Johnson

Similar to the case of Rune, it is questionable whether a mechanism such as that described by Johnson would ever have been considered for use in combination with the systems taught by Jordan and Brendel. Hence, even if Johnson considers the load of the server, such teachings are irrelevant because the motivation for the combination has not been properly established.

Claims 16-20 are patentable over Jordan and Brendel even when considered in combination with Chauhan

From the above it should be apparent that claims 16-20 are patentable over the combination of Jordan and Brendel. Chauhan (EP 0959601) fails to cure this deficiency. Chauhan describes a method for selecting a server from among a number of mirrors. Such teachings are irrelevant, however, because the claims are patentable for other reasons as discussed above with respect to Claim 1.

CONCLUSION

Having tendered the above remarks and amended the claims as indicated herein, the applicants respectfully submit that all rejections have been addressed and that the claims are now in a condition for allowance, which is earnestly solicited.

Applicants reserve all rights with respect to the applicability of the doctrine of equivalents.

If there are any additional charges, please charge Deposit Account No. 02-2666. If a telephone interview would in any way expedite the prosecution of the present application, the Examiner is invited to contact Jaina Chua at (408) 720-8300

Respectfully Submitted,

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